

#4

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No.: D-3988CIP

Virginia M. VASEY-GLANDON et al.

Appln. No.: 09/987,452

Group Art Unit: 2123

Filed: November 14, 2001

Examiner: Unknown

RECEIVED

JUL 02 2002

OFFICE OF PETITIONS

For: KNOWLEDGE DRIVEN COMPOSITE DESIGN OPTIMIZATION PROCESS AND
SYSTEM THEREFOR

SUBMISSION OF FORMAL DRAWING

BOX ISSUE FEE

Honorable Commissioner of
Patents and Trademarks
Washington, D.C. 20231

ATTN: OFFICIAL DRAFTSPERSON

Sir:

Submitted herewith please find **one (1)** sheet of formal drawings, which sheet is identified as Fig. 10D.

In the Notice to File Missing Parts dated November 30, 2001 (copy attached), the U.S. Patent and Trademark Office indicated that Fig. 10D was missing from the application. The Notice to File Missing Parts noted two methods for incorporating Fig. 10D into the above-identified application, neither of which addressed the factual situation.

It is respectfully submitted that Applicants have both a stamped filing receipt and a returned post card (copies attached), which acknowledge that the U.S. Patent and Trademark Office received sixty-eight(68) sheets of drawings submitted on November 14, 2001. Thus, since the U.S. Patent and Trademark Office has acknowledged that all drawing sheets were present in the application at the time of filing, the U.S. Patent and Trademark Office is respectfully requested to enter the attached into the above-identified application.

Should the U.S. Patent and Trademark Office determine that this request cannot be acted



SUBMISSION OF FORMAL DRAWING

upon without petition, Applicants respectfully request that the instant paper should be treated as the requisite petition. Moreover, since the loss of the attached Figure clearly occurred with the U.S. Patent and Trademark Office, it is respectfully submitted that the instant paper can be treated as a petition without incurring the customary Petition Fee of \$130.00 set forth in 37 C.F.R. §1.17(h). Should the U.S. Patent and Trademark Office that the Petition Fee specified in 37 C.F.R. §1.17(h) should be charged to Deposit Account No. 16-2372. A duplicate copy of this paper is attached.

In the event that the U.S. Patent and Trademark Office determines that Fig. 10D cannot be entered as discussed above, Applicants respectfully request that the Figure be entered in accordance with the provisions of 37 C.F.R. §1.121(e), which states that:

(e) *Disclosure consistency.* The disclosure must be amended, when required by the Office, to correct inaccuracies of description and definition, and to secure substantial correspondence between the claims, the remainder of the specification, and the drawings.

The Specification indicates that Fig. 10 includes Figs. 10A, 10B, 10C, 10D, and 10E. Moreover, pages 49-50 of the Specification, as filed, describe a portion of the flowchart illustrated in Fig. 10 in the following manner:

“Jumping ahead to step 314, the total number of plies to drop at the border is determined. Then, step 315 is performed to divide the total number of dropped plies by two, and then by the number of adjacent terminations; based on these results, the next highest integer number is determined. Next, step 316 is executed to divide the number of unassigned plies in a thicker laminate by two, then by the integer just calculated in step 315. The result is then truncated to an integer (n). During step 317, a “seed” termination is established every Nth ply, counting up from the continuous centerline ply, on the thicker laminate.

A series of queries is then performed to determine ply optimization with respect to the seed ply. First, step 318 is performed to determine if the outermost ply on one side of the centerline is the seed ply. When the answer is negative, an additional query is performed at step 319 to determine whether the outermost unassigned plies on one side of the centerline can be made continuous. If the answer is affirmative, step 320 is performed to connect the outermost unassigned plies, thus making these plies assigned; when the answer is negative, step 321 is executed to connect the outermost unassigned plies in the thinner region to the outermost similar ply in the thickest region and to assign plies outward of the connection as dropping. It will be noted from Figs. 10A and 10B that when the response at step 318 is affirmative, step 332 is performed to connect the outermost unassigned plies in the thinner region to the outermost similar ply which is not the outermost ply in the thickest

SUBMISSION OF FORMAL DRAWING

region and to assign the plies outward of the connection as dropping. In any event, step 322 is performed following completion of one of the steps 320, 321 and 332. . . . Regardless of the action taken responsive to step 322, step 327 is then performed to determine whether there are more plies toward the centerline. When the answer is affirmative, the subroutine repeats step 318 and subsequent steps; when the answer is negative, step 328 is performed to determine whether there is another border to investigate in this region."

However, since these steps are not clearly illustrated in the 67 sheets of Figures that the U.S. Patent and Trademark Office admits were present with the application at the time of filing, Applicants submit that including Fig. 10D in the application merely secures correspondence between the Specification and Drawings, i.e., the correspondence specifically countenanced by 37 C.F.R. §1.121(e). Furthermore, in light of the detailed discussion of the steps illustrated in Fig. 10D, there can be no assertion that the Applicants are attempting to introduce new matter into the application.

In short, since Fig. 10D does not introduce new matter into the application, and since the inclusion of Fig. 10D is specifically contemplated by 37 C.F.R. §1.121(e), Applicants respectfully request the entry of Fig. 10D into the application. Moreover, Applicants respectfully request that entry of Fig. 10D be acknowledged in the next Patent Office paper.

Respectfully submitted,



Raymond H. J. Powell, Jr.
Registration No. 34,231

WESTERLUND · POWELL, P.C.
100 Daingerfield Rd., Suite 100
Alexandria, Virginia 22314-2886
Ph: (703) 706-5862 - Fax: (703) 706-5860

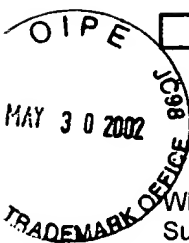
Date: May 30, 2002

Atty. Docket No. D-3988CIP



UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS
UNITED STATES PATENT AND TRADEMARK OFFICE
WASHINGTON, D.C. 20231
www.uspto.gov



APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NUMBER
09/987,452	11/14/2001		D-3988CIP

CONFIRMATION NO. 6920

FORMALITIES LETTER



OC000000007140099

WESTERLUND . POWELL, P.C.
Suite 100
100 Daingerfield Rd.
Alexandria, VA 22314-2886

Date Mailed: 11/30/2001

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

05/30/2002 SSESKE1 00000076 162372 09987452

FILED UNDER 37 CFR 1.53(b)

01 FC:101 740.00 CH
02 FC:102 84.00 CH
03 FC:105 130.00 CH

Filing Date Granted

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items and pay any fees required below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

- The statutory basic filing fee is missing.
Applicant must submit \$ 740 to complete the basic filing fee for a non-small entity. If appropriate, applicant may make a written assertion of entitlement to small entity status and pay the small entity filing fee (37 CFR 1.27).
- Total additional claim fee(s) for this application is \$84.
 ■ \$84 for 1 independent claims over 3 .
- The oath or declaration is missing.
A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.
- To avoid abandonment, a late filing fee or oath or declaration surcharge as set forth in 37 CFR 1.16(l) of \$130 for a non-small entity, must be submitted with the missing items identified in this letter.
- The balance due by applicant is \$ 954.

The application is informal since it does not comply with the regulations for the reason(s) indicated below.

The required item(s) identified below must be timely submitted to avoid abandonment:

- Substitute drawings in compliance with 37 CFR 1.84 because:
 - drawing sheets do not have the appropriate margin(s) (see 37 CFR 1.84(g)). Each sheet must include a top margin of at least 2.5 cm. (1 inch), a left side margin of at least 2.5 cm. (1 inch), a right side margin of at least 1.5 cm. (5/8 inch), and a bottom margin of at least 1.0 cm. (3/8 inch);

The following item(s) appear to have been omitted from the application:

- Figure(s) **10D** described in the specification.

I. Should applicant contend that the above-noted omitted item(s) was in fact deposited in the U.S. Patent and Trademark Office (USPTO) with the nonprovisional application papers, a copy of this Notice and a petition (and \$130.00 petition fee (37 CFR 1.17(h))) with evidence of such deposit **must** be filed within **TWO MONTHS** of the date of this Notice. The petition fee will be refunded if it is determined that the item(s) was received by the USPTO.

II. Should applicant desire to supply the omitted item(s) and accept the date that such omitted item(s) was filed in the USPTO as the filing date of the above-identified application, a copy of this Notice, the omitted item(s) (with a supplemental oath or declaration in compliance with 37 CFR 1.63 and 1.64 referring to such items), and a petition under 37 CFR 1.182 (with the \$130.00 petition fee (37 CFR 1.17(h))) requesting the later filing date **must** be filed within **TWO MONTHS** of the date of this Notice.

III. The failure to file a petition (and petition fee) under the above options (I) or (II) within **TWO MONTHS** of the date of this Notice (37 CFR 1.181(f)) will be treated as a constructive acceptance by the applicant of the application as deposited in the USPTO. **THIS TWO MONTH PERIOD IS NOT EXTENDABLE UNDER 37 CFR 1.136(a) or (b).** In the absence of a timely filed petition in reply to this Notice, the application will maintain a filing date as of the date of deposit of the application papers in the USPTO, and original application papers (*i.e.*, the original disclosure of the invention) will include only those application papers present in the USPTO on the date of deposit.

In the event that applicant elects not to take action pursuant to options (I) or (II) above (thereby constructively electing option (III)), amendment of the specification to renumber the pages consecutively and cancel incomplete sentences caused by any omitted page(s), and/or amendment of the specification to cancel all references to any omitted drawing(s), relabel the drawing figures to be numbered consecutively (if necessary), and correct the references in the specification to the drawing figures to correspond with any relabelled drawing figures, is required. Any drawing changes should be accompanied by a copy of the drawing figures showing the proposed changes in red ink. Such amendment and/or correction to the drawing figures, if necessary, should be by way of preliminary amendment submitted prior to the first Office action to avoid delays in the prosecution of the application.

*A copy of this notice **MUST** be returned with the reply.*



Customer Service Center

Initial Patent Examination Division (703) 308-1202

PART 2 - COPY TO BE RETURNED WITH RESPONSE

REQUEST FOR EARLY NOTIFICATION OF
SERIAL NUMBER

Inventor: V. Vasey-Glandon et al.

Title: IMPROVEMENTS TO

KNOWLEDGE DRIVEN COMPOSITE

DESIGN OPTIMIZATION PROCESS

AND SYSTEM THEREFOR

Attorney Dkt No.: D-3988CIP

Pages - Spec/Abst: 83/1

Claims: 12

Dwg. Sheets: 68

Declaration: NO

Preliminary Amend: NO

IDS/Prior Art: NO

Priority Doc: NO

Assignment: NO

Small Entity Declaration NO

CORR. of INVENTOR NO

Fee: \$824.00

Check Attached: NO

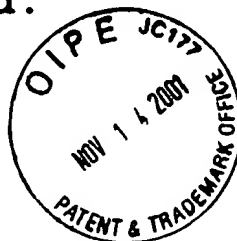
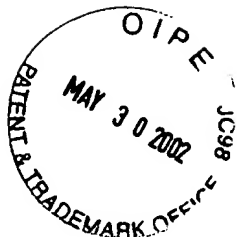
Charge Fee to Deposit

Account No. 16-2372

NO

Assigned

Serial No: _____



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JUL 02 2002

OFFICE OF PETITIONS



REQUEST FOR EARLY NOTIFICATION OF
SERIAL NUMBER

Inventor: V. Vasey-Glandon et al.

Title: IMPROVEMENTS TO

KNOWLEDGE DRIVEN COMPOSITE

DESIGN OPTIMIZATION PROCESS

AND SYSTEM THEREFOR

Attorney Dkt No.: D-3988CIP

Pages - Spec/Abst: 83/1

Claims: 12

Dwg. Sheets: 68

Declaration: NO

Preliminary Amend: NO

IDS/Prior Art: NO

Priority Doc: NO

Assignment: NO

Small Entity Declaration NO

CORR. of INVENTOR NO

Fee: \$824.00

Check Attached: NO

Charge Fee to Deposit

Account No. 16-2372

NO

jc929 U.S. PTO

Assigned

Serial No:

09/987452



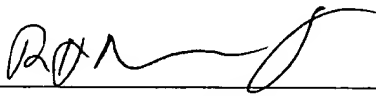
11/14/01

RECEIVED

JUL 02 2002

OFFICE OF PETITIONS

#6

TRANSMITTAL OF FORMAL DRAWINGS (In Response to Notice of Informal Drawings)				Docket No. D-3988CIP	
In Re Application Of: Virginia M. Vasey-Glandon et al.					
Serial No. 09/987,452	Filing Date November 14, 2001	Batch No. N/A	Examiner Unknown	Art Unit 2123	
Inventor: IMPROVEMENTS TO KNOWLEDGE DRIVEN COMPOSITE DESIGN OPTIMIZATION PROCESS AND SYSTEM THEREFOR					
Address to: Assistant Commissioner for Patents Washington, D.C. 20231					
In response to the NOTICE to File Missing Parts mailed on <u>11/30/2001</u> attached please find: (date)					
(a) 67 sheets of formal drawing(s) for this application.					
<input checked="" type="checkbox"/> Each sheet of drawing indicates the identifying indicia suggested in 37 CFR Section 1.84(c).					
(b) A copy of the NOTICE to File Missing Parts					
 _____ <i>Signature</i>			Dated: <u>May 30, 2002</u>		
Raymond H. J. Powell, Jr. Registration No. 34,231 WESTERLUND · POWELL, P.C. 100 Daingerfield Rd., Suite 100 Alexandria, Virginia 22314-2886 Ph: (703) 706-5862 - Fax: (703) 706-5860			I certify that this document and attached drawings are being deposited on _____ with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.		
			Signature of Person Mailing Correspondence		
			Typed or Printed Name of Person Mailing Correspondence		

**Response To Notice To File Missing Parts Of Application
Filing Date Granted (PTO-1533)(Large Entity)**

T.D
MPA
Docket No.
D-3988CIP

In Re Application Of: Virginia M. Vasey-Glandon et al.

Serial No.
09/987,452

Filing Date
November 14, 2001

Examiner
Unknown

Group Art Unit
2123

Invention: **KNOWLEDGE DRIVEN COMPOSITE DESIGN OPTIMIZATION PROCESS
AND SYSTEM THEREFOR**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Box Missing Parts

This is a response to the Notice to File Missing Parts of Application - Filing Date Granted (PTO-1533) mailed on
November 30, 2001
Date

Enclosed herewith for filing are the following:

- ☒ A copy of the Notice to File Missing Parts of Application - Filing Date Granted (PTO-1533). **(REQUIRED)**
- ☐ An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date.
- ☒ A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date.
- ☐ An oath or declaration in compliance with 37 CFR 1.63 listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date.
- ☐ A verified English translation of the non-English language application papers as originally filed. It is requested that this translation be used as the copy for examination purposes in the United States Patent and Trademark Office.
- ☒ Other (list):

Transmittal of Formal Drawings

09987452
00000076 162372
1440.00 CH

Docket No.
D-3988CIP

Serial No.
09/987,452

Filing Date
November 14, 2001

Examiner
Unknown

Group Art Unit
2123

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

☒ Completion of application fees as calculated below:

<input checked="" type="checkbox"/> Utility application filing fee	\$740.00
--	-----------------

☐ Design application filing fee

☒ Total number of independent claims = **4** **\$84.00**

☒ Total number of claims = 12

☐ Multiple dependent claims

<input checked="" type="checkbox"/> Surcharge for late payment of filing fee and/or late filing of original declaration or oath	\$130.00
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☐ Petition and fee for filing by other than all the inventors or a person not the inventor

☐ Fee for processing an application filed with a non-English language specification

☐ Fee for processing and retention of application

Total completion of application fees \$954.00

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a response to the above-identified Notice to File Missing Parts of Application. The requested extension is as follows (check time period desired). If an additional time extension is required, please consider this a petition therefor.

☐ One month ☐ Two months ☐ Three months ☒ Four months ☐ Five months

from: Junaury 30, 2002
Date

until: May 30, 2002
Date

Total time extension fees	\$1,440.00
---------------------------	------------

Total fees due \$2,394.00

**Response To Notice To File Missing Parts Of Application
Filing Date Granted (PTO-1533) (Large Entity)**

Docket No.
D-3988CIP

In Re Application Of: **Virginia M. Vasey-Glandon et al.**

Serial No.
09/987,452

Filing Date
November 14, 2001

Examiner
Unknown

Group Art Unit
2123

Invention: **KNOWLEDGE DRIVEN COMPOSITE DESIGN OPTIMIZATION PROCESS
AND SYSTEM THEREFOR**

TO THE ASSISTANT COMMISSIONER FOR PATENTS:

Box Missing Parts

The fee of **\$2,394.00** is to be paid as follows:

- ☐ A check in the amount of the fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account No. **16-2372**
A duplicate copy of this sheet is enclosed.
- ☒ If an additional extension of time is required, please consider this a petition therefor and charge any additional fees which may be required to Deposit Account No. **16-2372**
A duplicate copy of this sheet is enclosed.


Signature

Dated: **May 30, 2002**

Raymond H. J. Powell, Jr.
Registration No. 34,231
WESTERLUND · POWELL, P.C.
100 Daingerfield Rd., Suite 100
Alexandria, Virginia 22314-2886
Ph: (703) 706-5862 - Fax: (703) 706-5860

I certify that this document and fee is being deposited on _____ with the U.S. Postal Service as first class mail under 37 C.F.R. 1.8 and is addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Signature of Person Mailing Correspondence

Typed or Printed Name of Person Mailing Correspondence

CC: